IAP | Medicaid Innovation Accelerator Program

DETERMINING PERFORMANCE BENCHMARKS FOR A MEDICAID VALUE-BASED PAYMENT PROGRAM

This brief describes approaches that state Medicaid programs can consider when developing the benchmarks, or standards against which to judge performance, for value-based payment programs. It provides considerations for determining a benchmark when (1) a performance measure lacks a benchmark, or (2) an existing benchmark is not appropriate for the intended use or setting. For example, the National Committee for Quality Assurance develops Healthcare Effectiveness Data and Information Set (HEDIS®) measures; each of these measures and its corresponding benchmark targets a specific setting, such as health plan, physician, preferred provider organization, or other organizational setting. If a value-based payment program does not apply a HEDIS measures to the intended setting, the benchmark might also not apply. An existing benchmark can also require adjustment based on state-specific considerations, such as those shown in the box at right. With this purpose in mind, the brief begins with a short introduction, followed by a discussion of benchmarking methods and approaches to setting benchmarks.

Key considerations for developing benchmarks for Medicaid value-based payment programs

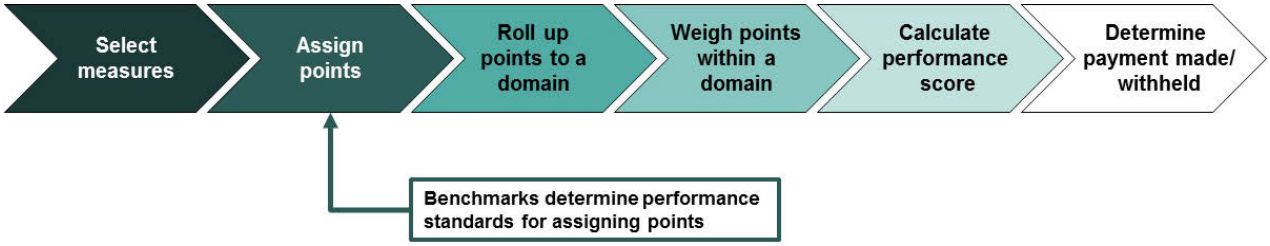
- Diversity of population
- State-specific goals and timeline for quality improvement
- Health care market
- State financial, system, and other resources for performance monitoring
- Need to align with existing performance systems

Introduction

State Medicaid programs have begun to adopt value-based payment strategies that aim to reward providers or health plans with incentive payments for the quality, rather than the quantity, of care provided to their beneficiaries. These states use a variety of models, such as pay-for-performance, shared savings programs, and bundled payments for episodes of care. For example, Maine, Minnesota, and New Jersey have established Accountable Care Organizations (ACOs) with shared savings payment models to reduce costs and improve care delivery in their Medicaid programs. Alabama, Louisiana, and Pennsylvania have pay-for-performance programs that provide incentives to participating providers.

A common component across value-based payment models is the use of a set of standardized measures and benchmarks (Figure 1). For some pay-for-performance programs, providers earn points based on performance against specified benchmarks and the points govern the amount of payment received or withheld. Similarly, for certain shared savings programs, the performance measures and points earned help determine the share of the savings a provider receives. Although bundled payment models do not necessarily require performance measures and benchmarks to determine the amount or share of payment, these models often include quality metrics that result in bonuses to providers. Given the relationship to payment amounts, selecting performance measures and the benchmarks used as the points of reference for gauging performance in value-based payment models requires careful deliberation.

Figure 1. Illustrative benchmarking approach within the value-based payment process



Benchmarking methods

The benchmarking method determines the standards against which performance is assessed. The method might differ depending on the type of performance improvement desired. For example, incentivizing providers to work toward a specific goal for a measure requires a different benchmarking method than motivating them to advance from a baseline. A program might use a benchmark of an absolute value to incentivize providers to achieve a goal, whereas it might use a benchmark of a percentage change from baseline to motivate them to make progress. The three most common methods for benchmarking are: (1) industry standard, which sets the benchmark against performance across entities within the industry; (2) absolute goal, which sets the benchmark as a specific value of performance; and (3) improvement goal, which sets the benchmark as a specific change in performance to achieve (Table 1). Below we discuss several factors that influence the choice of method.

Goals for achievement. Value-based payment programs might have different goals for performance along various measures, such as improving versus maintaining performance. Improving performance requires benchmarks that will drive progress—such as those set using the improvement goal method. In contrast, maintaining performance requires benchmarks that will motivate providers and health insurance plans to reach a desired level of performance and then incentivize them to stay at that level—such as the benchmarks set using the industry standard and absolute goal methods.

Category of the performance measure. Measures usually fall into one of two categories: (1) process/output measures or (2) outcome measures. Benchmarks that motivate improvement in processes and their outputs usually aim to achieve a certain level of performance and, therefore, might be more aligned with the industry standard or an absolute goal. Outcomes measures that are geared toward progress may benefit from an improvement goal approach.

Historical performance along the measure. For some measures, performance varies little—performance may be historically high or low. For example, vaccination coverage rates among children in the United States are at more than 80 percent for most diseases.[1] Thus, the margin for and distribution of improvement on vaccination rates will be relatively small. In this case, there may not be sufficient variation to motivate progress and the absolute goal method might be most appropriate for benchmarking. In contrast, for measures that have state median rates that are low or are well below national benchmarks, there are opportunities for large improvements, which might be more conducive to using benchmarks of a percentage improvement from baseline.

[1] National Center for Health Statistics, Centers for Disease Control, "Immunizations," from March 17, 2017, accessed May 25, 2017. Available at https://www.cdc.gov/nchs/fastats/immunize.htm.

Table 1. Summary of common benchmarking methods

Industry standard	
Approach	The benchmark is based on the performance of similar entities or performance within the industry.
Common circumstances for applying it	Measures for which performance should be maintained and for which it can vary greatly from year to year.
Considerations	This method fosters competition among participating organizations, because some will always fall above or below the benchmark. It may require strong risk-adjustment methods to ensure comparability across participating organizations.
Absolute goal	
Approach	The benchmark is set as the value that the Medicaid agency desires all participating organizations to reach. The agency can adjust this value each measurement period.
Common circumstances for applying it	Measures for which achieving a specific value is desired (such as to comply with guidelines) or when performance across participating organizations varies little.
Considerations	The benchmark should be a goal that is feasible, but not too easy for participating organizations to reach. The agency can adjust this goal each measurement period toward an ultimate, long-term goal.
Improvement goal	
Approach	The benchmark is set as a desired change (percentage or absolute value) for improvement from a baseline.
Common circumstances for applying it	Measures for which continuous improvement is possible and desired, current levels of achievement are far from ultimate targets, or baseline performance among participating organizations varies greatly.
Considerations	This method requires that data be available to determine baseline performance. If performance is already high at baseline, future improvements could be negligible or small.

Source: Ettorchi-Tardy, Amina, Marie Levif, Philippe Michel. "Benchmarking: A Method for Continuous Quality Improvement in Health." *Healthcare Policy*, vol. 7, no. 4, 2012, pp. e101–e119.

Kay, Jay F.L. "Health Care Benchmarking." *The Hong Kong Medical Diary*, vol. 12, no. 2, 2007, pp. 22–27.

This section and its examples do not provide definitive instructions for applying the presented benchmarking methods. The section is intended to feature areas for deliberation when choosing a method. Any of these methods can apply depending on the various factors and circumstances surrounding the requirements and goals for benchmarking.

Setting benchmarks

After selecting the benchmarking method, the next step is to set the specific value or values against which an agency will assess performance. Many state Medicaid agencies work with health plans to use HEDIS® measures and use the benchmarks included with these measures to assess performance. Although HEDIS® measures are available for many areas of quality measurement, they might not be available for a particular area of interest to an agency. In these cases, agencies must seek other measures and identify external benchmarks or develop their own benchmarks. In addition, even if agencies use HEDIS® measures, the measures might not apply to the setting or populations being assessed, and the agencies may need benchmarks from other sources. For example, HEDIS® benchmarks for health plan-level measures might not be applicable to the same measure used in a hospital setting. This section discusses potential external sources to inform the setting of benchmarks, approaches for developing benchmarks when external sources are unavailable, and key considerations when setting them.

1. Identifying external benchmarks

External benchmarks offer a way to frame performance against a standard, measure good performance, and incentivize improvement. In addition to HEDIS® measures, national survey data, measure steward recommendations, and Medicaid data sources support the development of external benchmarks. Attachment A includes selected national sources that might be Medicaid-relevant. Potential types of sources for national benchmarks are as follows:

- **National surveys and surveillance systems.** The National Center for Health Statistics and other agencies collect health data through several national surveys and surveillance systems that could provide information for setting benchmarks. These data sources can focus on various services, conditions, and physical and mental health functioning, cover different adult and child populations, and provide national-level estimates for benchmarking purposes or small area estimation. In addition, they can include state-specific rates, depending on available sample sizes.
- **Medicaid.** Many state agencies report Adult and Child Core Sets of health care quality measures for their Medicaid programs and the Children's Health Insurance Program (CHIP). These measures include both HEDIS® and non-HEDIS® measures. CMS presents state performance on selected measures, as well as information about state deviations from the technical specifications in developing the measures.
- **Other.** The National Quality Forum and measure stewards occasionally disseminate benchmarks through the technical specifications for their quality measures. In addition, professional associations' guidelines and recommendations for clinical care and national initiatives, such as Healthy People 2020, include aspirational goals that could serve as benchmarks.

2. Developing benchmarks using internal data

Internal benchmarks are often considered less desirable than external ones because of biases inherent in setting targets using data from within an organization. However, if appropriate external benchmarks are unavailable, developing benchmarks based on internal organizational data may be a viable option. Internal sources of data might include organizational records and documentation, such as electronic health records, encounter and claims administrative data, payments or invoices, annual reports, intake surveys, or other data-generating activities. Steps for developing internal benchmarks include (1) obtaining data for similar processes or outcomes relevant to the one being assessed, (2) reviewing historical performance for the process or outcome of interest, and (3) developing benchmarks based on historical performance. Often this last step involves a consensus-building process.

Most benchmarking approaches can use either internal or external data sources. The three benchmarking methods described in Section 2 can use data from sources either within or outside the organization. For example, the industry standard approach relies on reviewing current data—from within or outside the organization—to establish the performance goal. Similarly, the benchmark for the absolute goal or improvement approach may be based on external data or on an examination of internal performance.

3. Considerations in setting benchmarks

Whether using internal or external benchmarks, setting a point of reference for performance involves several considerations related to applying the measure, reporting requirements, and data availability. For example, a measure generated using different sources will usually result in different rates—using administrative data to measure the rate of prenatal care in the first trimester often yields a lower rate than using a hybrid of administrative and medical records data.

In addition to setting a specific, discrete benchmark for good performance, another approach is to develop tiers of performance—such as poor, good, very good, and excellent performance—with a point system. The actual distribution of performance across participating organizations will factor into the decision to use a tiered approach and the particular point levels. Figure 2 provides an example of a tiered point assignment in which performance is sufficiently distributed by standard deviations from the benchmark (sometimes the mean). In this case, the higher the standard deviation from the benchmark, the better the performance; thus, performance up to one standard deviation above the benchmark earns one point, one to two standard deviations above earns two points, and more than two standard deviations earns three points. (Figure 2). Table 2 describes some factors that could influence setting benchmarks.

Figure 2. Illustrative tiered point assignment from benchmark

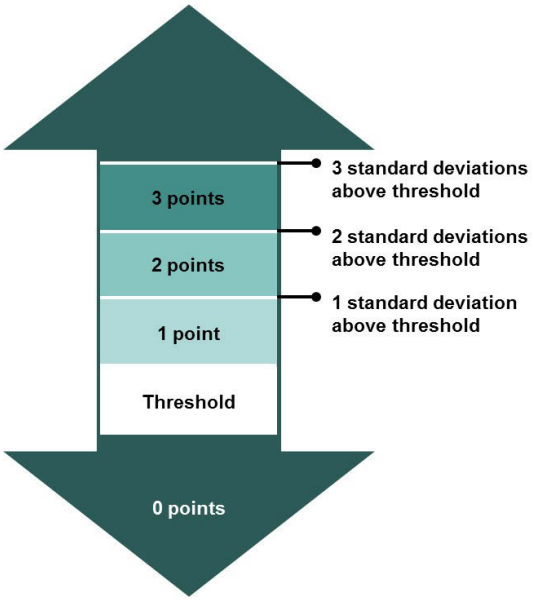


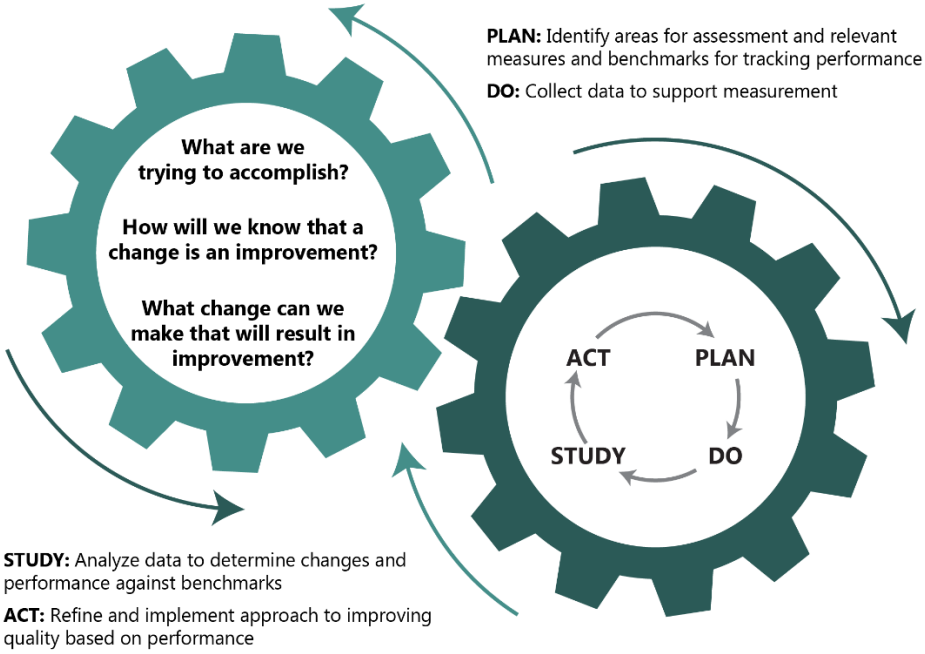
Table 2. Summary of key considerations for setting benchmarks

Key considerations	Benchmarking implications	Tiered point assignment implications
Measure application		
• **Population** • **Service delivery setting**	Benchmark reflects achievable value within the population or setting for measurement	Tiers represent reasonable distribution and variation in measure within population or setting for measurement
Reporting frequency		
• **Time period feasible to observe change** • **Degree of change anticipated**	Benchmark for each time period for reporting reflects achievable performance improvement	Tiers represent reasonable distribution and variation in performance improvement within time period
Data availability		
• **Data source** • **Sample size**	Benchmark considers the values and precision of measures generated using data source	Tiers represent reasonable distribution and variation based on sample size and data source

Concluding remarks

Benchmarking represents an integral component of the quality improvement cycle as shown in Figure 3. It can help organizations assess whether improvement is occurring and whether the changes meet the desired performance standards. Developing appropriate benchmarks for measures can spur innovation and best practices and maximize performance as participating organizations strive to meet the goals they set. In a Medicaid value-based payment context, benchmarks also influence payments, making it a high-stakes process. Thus, benchmarks set too low or too high can demotivate organizations, health plans or providers. It is important to continually assessing benchmarks to adapt to contextual changes and lessons learned, and ensure standards for performance are set at optimal levels to incentivize ongoing progress.

Figure 3. Ongoing cycle for quality improvement



Source: Langley, G.L., R. Moen, K.M. Nolan, T.W. Nolan, C.L. Norman, and L.P. Provost. The Improvement Guide: A Practical Approach to Enhancing Organizational Performance. 2nd edition. San Francisco: Jossey-Bass Publishers, 2009.

Two state examples. To illustrate setting and using benchmarks for value-based payment in the state Medicaid context, Attachment B provides two state examples: (1) Oregon Coordinated Care Organization's Pay-for-Performance Program and (2) Vermont's Medicaid Shared Savings Program.

ATTACHMENTS

ATTACHMENT A. SELECTED NON-HEDIS® SOURCES FOR EXTERNAL BENCHMARKS

ATTACHMENT B. STATE PROFILES: OREGON'S COORDINATED CARE ORGANIZATION PAY-FOR-PERFORMANCE PROGRAM AND VERMONT'S MEDICAID SHARED SAVINGS PROGRAM

ATTACHMENT A

SELECTED NON-HEDIS® SOURCES FOR EXTERNAL BENCHMARKS

Table A.1. Selected non-HEDIS® sources for external benchmarks

National surveys and surveillance systems	
Behavioral Health Barometer	
Modules or topics	Youth substance use (marijuana, nonmedical use of pain relievers, illicit drugs, cigarettes, binge alcohol, substance use initiation, risk perceptions), youth mental health and treatment (depression), adult mental health and treatment (thoughts of suicide, serious mental illness), substance use (alcohol dependence or abuse, illicit drug dependence or abuse, heavy alcohol use), substance use treatment (alcohol, illicit drugs)
Population included	U.S. residents ages 12 and older
State-level information	50 states and the District of Columbia
Years available	2013 to 2015
URL	https://www.samhsa.gov/data/behavioral-health-barometers
Behavioral Risk Factor Surveillance System (BRFSS)	
Modules or topics	Asthma; human papillomavirus vaccination; anxiety/depression; arthritis management; breast, cervical, colorectal, and prostate cancer screening; cardiovascular health; caregiver; cognitive decline; pre-diabetes and diabetes; emotional support and life satisfaction; industry and occupation; shingles; sodium or salt-related behavior; tetanus diphtheria; visual impairment and access to eye care
Population included	Noninstitutionalized U.S. residents ages 18 and older
State-level information*	56 U.S. states and territories
Years available	1984 to 2015
URL	https://www.cdc.gov/brfss/annual_data/annual_data.htm
Longitudinal Studies of Aging	
Modules or topics	Activities of daily living; instrumental activities of daily living; bed-days; chronic conditions and impairments; acute conditions; other diagnoses; doctor visits; hospital stays and days; health insurance coverage for hospital care and doctor visits; public or private insurance coverage; health opinions; home health care visits; hospice institutionalization; receipt of Medicaid, military retirement, nursing home stays; pensions, and eligibility for veteran's medical care and disability compensation; use of community services; nursing home stays; surgical procedures;
Population included	Civilian noninstitutionalized people ages 70 and older
State-level information	Not available
Years available	1984 to 2000
URL	https://www.cdc.gov/nchs/lsoa/
National Ambulatory Medical Care Survey	
Modules or topics	Community health center visits; hospital outpatient department visits; hospital emergency department visits; medication therapy; medication therapy; physician office visits; use of electronic medical record/electronic health record systems; other provider characteristics
Population included	Non-federally employed office-based physicians who are primarily engaged in direct patient care
State-level information*	The number of available state-based estimates varies by year
Years available	1973 to 1981, 1985, 1989 to 2015
URL	https://www.cdc.gov/nchs/ahcd/
National Health and Nutrition Examination Survey (NHANES)	
Modules or topics	Anemia; cardiovascular disease; diabetes; environmental exposures; eye diseases; hearing loss; infectious diseases; kidney diseases; nutrition; obesity; oral health; osteoporosis; physical fitness and physical functioning; reproductive history and sexual behavior; respiratory disease (asthma, chronic bronchitis, emphysema); sexually transmitted diseases; vision
Population included	Noninstitutionalized civilian resident population of the United States of all ages
State-level information	Not available
Years available	1960 to 2015
URL	https://www.cdc.gov/nchs/nhanes/index.htm

National Health Interview Survey (NHIS)	
Modules or topics	Chronic conditions including asthma and diabetes; access to and use of health care services; health insurance coverage and type of coverage; health-related behaviors including smoking, alcohol use, and physical activity; immunizations; measures of functioning and activity limitations; physical and mental health status
Population included	Noninstitutionalized civilian resident population of the United States
State-level information*	State data are not publicly available. The survey sample is too small to provide state-level data with acceptable precision for each state, but selected estimates for most states (50 states and the District of Columbia) can be obtained by combining data years
Years available	1957 to 2015
URL	https://www.cdc.gov/nchs/nhis/
National Hospital Care Survey (NHCS)	
Modules or topics	Health care delivery in hospital-based settings: inpatient care; emergency department care; outpatient department care, including hospital-based ambulatory surgery
Population included	U.S. hospitals
State-level information	Not available
Years available	2011 to 2015
URL	https://www.cdc.gov/nchs/nhcs/
National Mental Health Services Survey (N-MHSS)	
Modules or topics	Characteristics of mental health treatment facilities, characteristics of persons served in these treatment facilities as of a specified survey reference date.
Population included	Specialty mental health treatment facilities
State-level information*	50 states, the District of Columbia, and the U.S. territories
Years available	2010, 2012, 2014, and 2015
URL	https://www.samhsa.gov/data/mental-health-facilities-data-nmhss
National Study of Long-Term Care Providers (NSLTCP)	
Modules or topics	Long-term care providers; long-term care services; long-term care service users
Population included	U.S. residential care communities
State-level information	50 states and the District of Columbia
Years available	2012 and 2014
URL	https://www.cdc.gov/nchs/nsltcp/
National Survey of Substance Abuse Treatment Services (N-SSATS)	
Modules or topics	Characteristics of substance abuse treatment facilities, operation of the facility, special programs or groups provided for specific client types, client outreach, and payment options; client count information; and facility licensure, certification, or accreditation
Population included	Facilities providing substance abuse treatment services
State-level information	50 states, the District of Columbia, and U.S. territories
Years available	1997 to 2014
URL	https://wwwdasis.samhsa.gov/dasis2/nssats.htm
National Survey on Drug Use and Health (NSDUH)	
Modules or topics	Age at first use; annual, lifetime, and past-month usage for the following drugs: alcohol, marijuana, cocaine (including crack), hallucinogens, heroin, inhalants, tobacco, pain relievers, tranquilizers, stimulants, and sedatives; substance abuse treatment history and perceived necessity of treatment
Population included	U.S. residents ages 12 and older (randomly selected)
State-level information	50 states and the District of Columbia
Years available	1979 to 2015
URL	https://nsduhweb.rti.org/respweb/homepage.cfm

Pregnancy Risk Assessment Monitoring System (PRAMS)	
Modules or topics	Attitudes and feelings about the most recent pregnancy; maternal alcohol and tobacco consumption; mother's knowledge of pregnancy-related health issues such as adverse effects of tobacco and alcohol, benefits of folic acid, and risks of HIV; prenatal care; physical abuse before and during pregnancy; pregnancy-related morbidity; infant health care; contraceptive use
Population included	U.S. women who have had a recent live birth
State-level information	47 states, the District of Columbia, and Puerto Rico (California, Idaho, and Ohio do not participate)
Years available	1987 to 2015
URL	https://www.cdc.gov/prams/
State and Local Area Integrated Telephone Survey (SLAITS)	
Modules or topics	Health insurance coverage; access to care; perceived health status; utilization of services; measurement of child well-being
Population included	Population varies based on specific survey module
State-level information*	Availability varies based on specific survey module
Years available	1997 to 2014 (availability varies based on specific survey module)
URL	https://www.cdc.gov/nchs/slaits/
Prevention Quality Indicators (PQI)	
Modules or topics	Quality of care for ambulatory care sensitive conditions
Population included	Varies based on specific PQI measure
State-level information	Not available
Years available	2007 to 2015 (availability varies by year)
URL	https://www.qualityindicators.ahrq.gov/Modules/pqi_resources.aspx
Inpatient Quality Indicators (IQI)	
Modules or topics	Hospital quality of care; inpatient mortality; utilization of procedures
Population included	Varies based on specific IQI measure
State-level information	Not available
Years available	2007 to 2015 (availability varies by year)
URL	https://www.qualityindicators.ahrq.gov/Modules/iqi_resources.aspx
Patient Safety Indicators (PSI)	
Modules or topics	Hospital complications; adverse events
Population included	Varies based on specific PSI measure
State-level information	Not available
Years available	2007 to 2015 (availability varies by year)
URL	https://www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx
Pediatric Quality Indicators (PDI)	
Modules or topics	Pediatric health care; preventable complications; preventable hospitalizations
Population included	U.S. pediatric population
State-level information	Not available
Years available	2007 to 2015 (availability varies by year)
URL	https://www.qualityindicators.ahrq.gov/Modules/pdi_resources.aspx
Title V Information System (TVIS)	
Modules or topics	Well-woman visits; cesarean delivery; perinatal care; breastfeeding; safe sleep; developmental screening; injury hospitalization; physical activity; bullying; adolescent well-visits; medical home; transition; dental care; smoking; insurance
Population included	U.S. women and children
State-level information	50 states
Years available	2009 to 2013, 2014, or 2015 (varies by measure)
URL	https://mchb.tvisdata.hrsa.gov/

Discretionary Grant Information System (DGIS)	
Modules or topics	Maternal and child public health; autism; child and adolescent health; emergency medical services for children; genetic resources and services; health promotion and disease prevention; Healthy Start; perinatal and women's health; maternal, infant, and early childhood home visiting; maternal and child health (MCH) data and infrastructure support; MCH workforce centers; newborn screening systems; research; systems of services for children, youth, and adults with special health care needs; training
Population included	U.S. women, children, and adolescents
State-level information*	Not available
Years available	2010 to 2014
URL	https://mchdata.hrsa.gov/dgisreports/PerfMeasure/default.aspx
Uniform Data System (UDS)	
Modules or topics	Patient demographics; services provided; clinical processes and outcomes; patient's use of services; costs and revenues
Population included	Patients at health centers that receive federal award funds under the Health Center Program authorized by Section 330 of the Public Health Service (PHS) Act (42 U.S.C. 254b) ("Section 330"), as well as patients at Health Center Program look-alikes
State-level information	50 states
Years available	2007 to 2015
URL	https://bphc.hrsa.gov/datareporting/index.html
Medicaid	
Medical Expenditure Panel Survey (MEPS)	
Modules or topics	Access to health care; children's health; elderly health care; health care costs/expenditures; health care disparities; health insurance; medical conditions; men's health; mental health; obesity; prescription drugs; quality of health care; women's health
Population included	Varies by specific survey (families and individuals; medical providers; employers across the U.S.)
State-level information	50 states and the District of Columbia (varies based on survey component)*
Years available	1996 to 2015
URL	https://meps.ahrq.gov/mepsweb/
Medicaid and CHIP Child Core Set Measures	
Modules or topics	Acute and chronic conditions; behavioral health; dental and oral health; perinatal care; primary and preventive care
Population included	Adult and child Medicaid and CHIP beneficiaries (specific populations included vary by measure or state)
State-level information	50 states and the District of Columbia (varies by measure)
Years available	2010 to 2015 (varies by measure)
URL	https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/child-core-set/index.html
Medicaid Adult Core Set Measures	
Modules or topics	Acute and chronic conditions; behavioral health; dental and oral health; perinatal care; primary and preventive care
Population included	Adult Medicaid beneficiaries (specific populations included vary by measure or state)
State-level information	50 states and the District of Columbia (varies by measure)
Years available	2014 and 2015 (varies by measures)
URL	https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-core-set/index.html

Other	
National Vital Statistics System (NVSS)	
Modules or topics	Births; teen births; infant mortality; fetal and perinatal mortality; mortality; maternal morbidity; cesarean delivery; source of payment for births
Population included	U.S. population
State-level information	50 states, 2 cities, and 5 territories
Years available	1890 to 2015
URL	https://www.cdc.gov/nchs/nvss/
National Death Index (NDI)	
Modules or topics	Death record information (fact of death, date of death)
Population included	Deaths of U.S. citizens that occurred in the United States
State-level information	50 states, the District of Columbia, and Puerto Rico*
Years available	1979 to 2015
URL	https://www.cdc.gov/nchs/ndi/
National Quality Forum Measures for Quality Improvement (external benchmarking to organizations)	
Modules or topics	Behavioral health; chronic conditions; health care utilization; primary and preventive care; health and functional status
Population included	Population varies based on measure, includes Adult and Child measures
State-level information	Varies based on measure
Years available	Varies based on measure
URL	www.qualityforum.org/QPS/QPSTool.aspx
Healthy People 2020 Objectives	
Modules or topics	Access to health services; adolescent health; arthritis, osteoporosis, and chronic back conditions; blood disorders and blood safety; cancer; chronic kidney disease; dementias; diabetes; disability and health; early and middle childhood; educational and community-based programs; environmental health; family planning; food safety; genomics; global health; health communication and health information technology; health-related quality of life and well-being; health care-associated infections; hearing and other sensory or communication disorders; heart disease and stroke; HIV; immunization and infectious diseases; injury and violence prevention; lesbian, gay, bisexual, and transgender health; maternal, infant, and child health; medical product safety; mental health and mental disorders; nutrition and weight status; occupational safety and health; older adults; oral health; physical activity; preparedness; public health infrastructure; respiratory diseases; sexually transmitted diseases; sleep health; social determinants of health; substance abuse; tobacco use; vision
Population included	Not applicable
State-level information	Not applicable
Years available	Not applicable
URL	https://www.healthypeople.gov/2020/topics-objectives
State Health Access Data Assistance Center (SHADAC)	
Modules or topics	Insurance coverage; access to care; affordability; health care utilization
Population included	Civilian noninstitutionalized population
State-level information	50 states and the District of Columbia
Years available	Varies by specific survey
URL	http://www.shadac.org/

Note: This list of sources is not exhaustive. It does not include individual measures steward or professional association websites.

* Indicates that state-level data are not publicly available.

ATTACHMENT B

STATE PROFILES

Oregon's Coordinated Care Organizations Pay-for-Performance Program

Vermont's Medicaid Shared Savings Program

OREGON'S COORDINATED CARE ORGANIZATIONS PAY-FOR-PERFORMANCE PROGRAM

In 2012, the Oregon Health Authority developed a pay-for-performance (P4P) program to incentivize improvements in health care delivery and outcomes through its coordinated care organizations (CCOs).[2] Following its inception, the program received a 2013 State Innovation Model grant from the Centers for Medicare & Medicaid Services, through which the Oregon Health Authority strengthened its CCO P4P program for its Medicaid population. Participating CCOs earn annual incentive payments based on their performance on quality metrics. The payments come from a quality pool and a challenge pool, which include a percentage of payments held back from the CCOs. The quality pool complies with the special terms and conditions set by the state's Section 1115 demonstration.

Selecting program quality metrics

In 2016 the CCO P4P program used 18 quality measures: 10 Healthcare Effectiveness Data and Information Set (HEDIS®) measures and 8 non-HEDIS® measures (Table B.1).[3] The Metrics and Scoring Committee selected the initial measure set in October 2012. The Committee includes nine people appointed by the director of the Oregon Health Authority: three members at large, three members with expertise in health outcome measures, and three staff from the participating CCOs. In addition to selecting the original measures, the Metrics and Scoring Committee reviews the incentive measures each year and determines which measures to add and retire. Table B.2 shows the criteria the committee uses to review measures. In addition, a Metrics Technical Advisory Group provides input into operationalizing and implementing the measures.

Table B.1. Oregon's CCO P4P program quality measures in 2016, by benchmarking approach

NQF number	Measure name
HEDIS® measures	
NA	Adolescent well-care visits
NA	Ambulatory care: emergency department utilization
NA	CAHPS® composite: access to care
NA	CAHPS® composite: satisfaction with care
0038	Childhood immunization status
0034	Colorectal cancer screening
0018	Controlling high blood pressure
0059	Diabetes: HbA1c poor control[a]
0576	Follow-up after hospitalization for mental illness
1517	Prenatal and postpartum care: timeliness of prenatal care

[2] The information for Oregon's state profile is from the Oregon Health Authority and is available at http://www.oregon.gov/oha/metrics and http://www.oregon.gov/oha/analytics.

[3] In 2017, OR suspended use of the alcohol or other substance misuse screening (SBIRT) measure while an EHR-based version was in development. The claims-based version of the measure could no longer be used because of issues with ICD-10 claims.

NQF number	Measure name
Non-HEDIS® measures	
NA	Cigarette smoking prevalence[b]
NA	Dental sealants on permanent molars for children – all ages[b]
0418	Depression screening and follow-up plan[a,b]
1448	Developmental screening in first 36 months of life[a,b]
NA	Effective contraceptive use among women at risk of unintended pregnancy[b]
NA	Mental, physical, and dental health assessments for children in Department of Human Services custody[b]
NA	Alcohol or other substance misuse screening (SBIRT; ages 12 years and older)[a,b]
NA	Patient-centered primary care home enrollment rate (PCPCH)[b]

Source: "Oregon Health Authority Measure Sets," from September 2015. Accessed March 2, 2017.
Oregon Health Authority's "2016 CCO Incentive Measure Benchmarks," from October 7, 2016. Available at http://www.oregon.gov/oha/metrics. Accessed March 2, 2017.

Notes: Additional technical specifications, guidance documents, and benchmarks for CCO incentive measures are available at http://www.oregon.gov/oha/analytics.
SBIRT will be removed for 2017 incentive payments. A complete list of CCO measures since 2013 and annual changes to the measures are available at http://www.oregon.gov/oha/analytics.

[a] Indicates a challenge pool measure.

[b] Indicates no national benchmark is available and set a threshold of 60 percent.

CAHPS® = Consumer Assessment of Healthcare Providers and Systems; SBIRT = screening, brief intervention, and referral to treatment.

Table B.2. Oregon CCO Shared Savings Program: Measure selection criteria

- Evidence-based and scientifically acceptable
- Has a relevant benchmark
- Not greatly influenced by patient case mix
- Consistent with the goals of the program
- Usable and relevant
- Feasible to collect
- Aligned with other measure sets
- Promotes increased value
- Presents an opportunity for quality improvement
- Transformative potential
- Sufficient denominator size
- Representative of the array of services provided by the program
- Representative of the diversity of patients served by the program
- Not unreasonably burdensome to payers or providers

Source: Oregon Health Authority, Office of Health Analytics, February 13, 2014. Available at http://www.oregon.gov/oha/analytics/metricsdocs/Measure_selection_criteria.pdf.

Setting performance benchmarks

The Oregon CCO P4P program uses two benchmarking methods: (1) absolute goal and (2) improvement goal:

1. **The absolute goal method** relies on national benchmarks, such as those provided for HEDIS® measures, to set the performance benchmarks when possible. However, no national benchmarks existed for the eight non-HEDIS® measures and the state had to develop a different approach to select benchmarks for these measures.[4] For six of the non-HEDIS® measures, Oregon's Metrics and Scoring Committee used a consensus process to develop the benchmarks for each measure. For the other two non-HEDIS® measure, the Metrics and Scoring Committee set the benchmark.
2. **The improvement goal method** sets benchmarks for performance against an improvement target. Oregon requires at least a 10 percent reduction in the gap between a CCO's prior year's performance and the absolute goal set for the year. For all measures except the Patient Centered Primary Care Home (PCPCH) measure, a CCO can qualify for incentive payments by meeting the absolute goal *or* achieving the improvement goal. Most measures also include an 'improvement floor' to insure a meaningful change. Typically this floor value falls between 2 to 4% depending on the metric and decisions of the Metric and Scoring Committee.[5]

Determining payment

Quality pool payment. The quality pool payment is the allocation of funds based on CCO performance against absolute goals or improvement targets for each measure. If a CCO meets or surpasses the absolute goal or the improvement target on at least 75 percent of the measures (13 of 17 measures for 2016) and achieves the PCPCH enrollment threshold, it will receive 100 percent of its possible quality pool payments. If a CCO meets the absolute goal or the improvement target for fewer than 13 of the measures or does not achieve the PCPCH benchmark, a tiered formula determines the percentage of quality pool payments (Table B.3).

Challenge pool payment. If a CCO does not earn 100 percent of its quality pool, the left-over funds are distributed through the challenge pool.[6] These funds are distributed to CCOs that meet the improvement targets for a smaller subset of measures; in 2016, these measures included diabetes blood sugar control; depression screening; developmental screening; and Screening, Brief Intervention, and Referral to Treatment [SBIRT]). The funds in the challenge pool are divided by the total number of challenge measures met. For example, if five CCOs meet the developmental screening target, 13 CCOs meet the SBIRT target, two CCOs meet the depression screening target, and five CCOs meet the diabetes blood sugar control target, the challenge pool is divided into 25 equal portions. The final payment to CCOs is then adjusted based on the CCO's average member months in the previous year.

[4] CCOs achieving the absolute goal benchmark in a given year must maintain or better their performance to be eligible for incentive payments in subsequent years.

[5] Most measures also include an 'improvement floor' to insure a meaningful change. Typically this floor value falls between 2 to 4% depending on the metric and decisions of the Metric and Scoring Committee.

[6] The Metrics and Scoring Committee identifies the measures included in the challenge pool; the measures for inclusion are revisited annually.

Table B.3. Oregon quality pool distribution method in 2016

Number of targets met	Percentage of quality pool payment for which the CCO is eligible
At least 13 (and at least 60 percent of PCPCH enrollment)	100
At least 13 (and less than 60 percent of PCPCH enrollment)	90
At least 11.60	80
At least 10.60	70
At least 8.60	60
At least 6.60	50
At least 4.60	40
At least 3.60	30
At least 2.60	20
At least 1.60	10
At least 0.60	5
Fewer than 0.60	No quality pool payment

Source: Oregon Health Authority 2016 Quality Pool Reference Instructions, September 1, 2016. Available at http://www.oregon.gov/oha/hpa/analytics/pages/index.aspx.

Progress to date

Oregon has improved the delivery of health care across the state's CCOs since implementing its P4P program. In 2016, Oregon's CCOs demonstrated improved performance across most measures tied to payment.[7] Some notable improvements include a 47 percent increase in adolescent well-care visits since 2013, with 15 of 16 CCOs improving in 2016 and 13 achieving their individual improvement target; a 19 percent increase over two years in the percentage of women ages 18-50 who are using an effective contraceptive; and a 168 percent increase over two years in the percentage of children in foster care who received a mental, physical, and dental health assessment.

[7] The only payment measure in 2016 without improved performance was the ambulatory care—emergency department utilization measure. This measure increased by 3.3 percent statewide increase in emergency department utilization (lower rates are better) over the previous year, which was the first time performance on this measure had increased since 2011.

VERMONT'S MEDICAID SHARED SAVINGS PROGRAM

In 2014, Vermont developed commercial and Medicaid Accountable Care Organization (ACO) Shared Savings Programs under its State Innovation Model (SIM) grant.[8] The purpose of the programs is to incentivize ACO provider networks to provide quality care. Through these programs, participating ACOs can earn payments drawn from any savings achieved through better care management.[9] The aggregated performance of the ACOs on a set of standardized clinical process, outcomes, and patient experience measures determines the additional payments.

Selecting program quality metrics

Vermont initiated and facilitated the performance measurement selection process, with subsequent support from the SIM testing grant. The state convened a quality and performance measures work group, which included Vermont's Medicaid agency, Blue Cross Blue Shield of Vermont, and Vermont's three ACOs: (1) Vermont Collaborative Physicians, (2) Community Health Accountable Care, and (3) OneCare Vermont. Additional participants included representatives from state agencies and programs, provider and consumer organizations, commercial insurers, and other organizations. The work group reviewed an initial list of more than 200 measures from national, state, and health plan sources and based its selection on a set of consensus criteria (Table B.4).

Table B.4. Vermont Medicaid ACO Shared Savings Program: Measure selection consensus criteria

- Presents an opportunity for improvement
- Representative of array of services provided and beneficiaries served by ACOs
- Has a relevant benchmark
- Focuses on outcomes
- Focuses on prevention, wellness, and risk and protective factors
- Selected from the Commercial or Medicaid Core Measure Set

Source: Vermont Agency of Human Services, Department of Vermont Health Access, no date.

In the end, the work group selected 31 measures for the Commercial Shared Savings Program and 32 measures for the Medicaid Shared Savings Program. Most selected measures were HEDIS® measures. A subset of these measures were identified as payment measures, 10 of which were used by the Medicaid Share Savings Program. These 10 Medicaid Shared Savings Program measures included eight HEDIS® measures with existing benchmarks and two non-HEDIS® measures that did not have existing benchmarks (Table B.5).

[8] Information for Vermont's state profile is from communications between staff at the Shared Savings Program and Mathematica Policy Research on February 3, 2017, and two presentations: (1) "Measure Selection Case Study: Vermont's Commercial and Medicaid ACO Shared Savings Programs," no date, shared with Mathematica on February 3, 2017; and (2) "Vermont's Year 2 Medicaid and Commercial ACO Shared Savings Program Results, October 2016," shared with Mathematica on March 8, 2017.

[9] Current participating ACOs include Vermont Collaborative Physicians (participated in Commercial Shared Savings Program in 2016); Community Health Accountable Care (participated in Commercial, Medicaid, and Medicare Shared Savings Programs in 2016); and OneCare Vermont (participated in Commercial, Medicaid, and Medicare Shared Savings Programs in 2016).

Table B.5. Vermont's ACO Shared Savings Program payment measures, 2015 to 2016

HEDIS® measures	
NQF number	**Measure name**
0329	All-cause readmission
NA	Adolescent well-care visits
0058	Avoidance of antibiotic treatment for adults with acute bronchitis
0033	Chlamydia screening in women
0018	Controlling high blood pressure
0059	Diabetes: HbA1c poor control
0576	Follow-up after hospitalization for mental illness
0004	Initiation and engagement of alcohol and other drug dependence treatment
Non-HEDIS® measures	
NQF number	**Measure name**
1399/1448	Developmental screening in first 36 months of life (Medicaid Shared Savings Program only)
NA	Rate of hospitalization for ambulatory care sensitive conditions: composite

Source: Department of Vermont Health Access and Vermont Green Mountain Care Board's presentation, "Measure Selection Case Study: Vermont's Commercial and Medicaid ACO Shared Savings Programs," received by Mathematica on February 3, 2017.

Determining the share of savings: "Gate and ladder" approach

The quality and performance measures work group created the methodology for distributing the shared savings among participating ACOs. The work group developed a method that assigns a point value from zero to three for each measure based on performance. Points are allocated differently for measures with and without a national benchmark.

- **Measures with existing national benchmarks.** For these measures, an ACO can earn one, two, or three points based on whether it performed at the national 25th, 50th, or 75th percentile for the measure, respectively (industry standard method).
- **Measures without existing benchmarks.** During the first year, an ACO earned zero, two, or three points based on whether its performance was statistically significantly worse, the same as, or better than the overall state Medicaid average (industry standard method). In subsequent years, the state determined each ACO's quality measure points based on whether the ACO's performance was statistically significantly worse than, the same as, or better than its baseline performance (improvement goal method).

To receive any shared savings, an ACO must meet a quality gate, which is a required percentage of maximum available points across all quality measures. After an ACO meets the quality gate threshold, the percentage of available points the ACO receives determines additional earned savings. For example, to meet the quality gate, an ACO must achieve 55 percent of available points, which results in the ACO receiving 75 percent of its share of the earned savings. If an ACO achieves 60 percent of the available points, it receives 80 percent of its share of the earned savings. This stepwise approach to earned savings is the ladder part of Vermont's gate and ladder methodology for determining shared savings.

Progress to date

The Medicaid ACOs have shown improvements in quality measures tied to payments for shared savings. At the end of 2015, the Community Health Accountable Care ACO reduced its Medicaid per member per month cost and improved its Shared Savings Program measures quality score for all years that data are available. OneCare Vermont also improved its payment measure quality scores in its Medicaid, commercial, and Medicare line of business. Vermont Collaborative Physicians continued to have high payment measure quality scores across its commercial programs.